



for

LED



*GooLED*

## GooLED-GE-11080 Pin Fin LED Heat Sink $\Phi$ 110mm for GE Lighting

### Features VS Benefits

- \* The GooLED-GE-11080 GE Lighting Pin Fin LED Heat Sinks are specifically designed for luminaires using the GE Lighting LED engines.
- \* Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
- \* For spotlight and downlight designs from 1,600 to 4,800 lumen.
- \* Thermal resistance range  $R_{th}$  1.21°C/W.
- \* Modular design with mounting holes foreseen for direct mounting of GE lighting Infusion™ LED engines.
- \* Diameter 110mm - standard height 80mm Other heights on request.
- \* Forged from highly conductive aluminum.

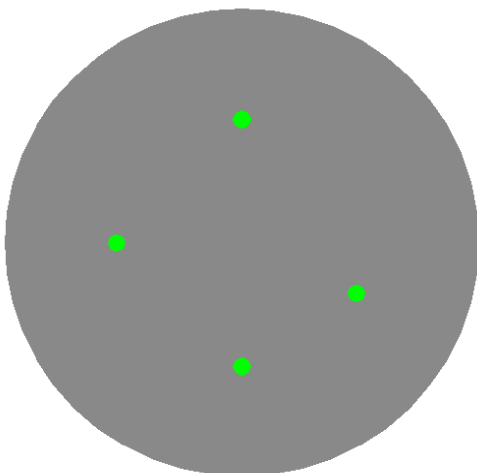


### Zhaga LED engine and radiator assembly is a unified future international standardization

- \* Below you find an overview of GE Lighting engines COB's and LED modules which standard fit on the Pin Fin LED Heat Sinks.
- \* In this way mechanical after work and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED Pin Fin LED Heat Sink.



GE  
Lighting



GE lighting LED engines for which Zhaga book5 LED Modules holders are available.

For the GE lighting Infusion™ M LED modules.

#### Infusion™ M3000

M3000/827/W/G4;  
 M3000/830/W/G4;  
 M3000/835/W/G4;  
 M3000/840/W/G4;  
 M3000/930/W/G4;

#### Infusion™ M4500

M4500/827/W/G4;  
 M4500/830/W/G4;  
 M4500/835/W/G4;  
 M4500/840/W/G4;  
 M4500/930/W/G4;

For the GE lighting Infusion™ DLM LED modules.

#### Infusion™ DLMM3000

DLM3000/927;  
 DLM3000/930;  
 DLM3000/935;  
 DLM3000/940;

#### Infusion™ DLM4000

DLM4000/927;  
 DLM4000/930;  
 DLM4000/935;  
 DLM4000/940;

Please refer to the "<http://www.gelighting.com/LightingWeb/emea/>" data provided on the manual.

Zhaga Book5 Green indicator marks:  
Direct mounting with machine screws M3.5x6.5mm;



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GooLED-GE-11080 Pin Fin LED Heat Sink  $\Phi$ 110mm for GE Lighting

Mounting Options and Drawings & Dimensions

Example:GooLED-GE-11080-B-1

Example:GooLED-GE-110 **1** - **2** - **3**

**1** Height (mm)

**2** Anodising Color

B-Black

C-Clear

Z-Custom

**3** Mounting Options - see graphics for details Combinations available

Ex.order code - 12

means option 1 and 2 combined

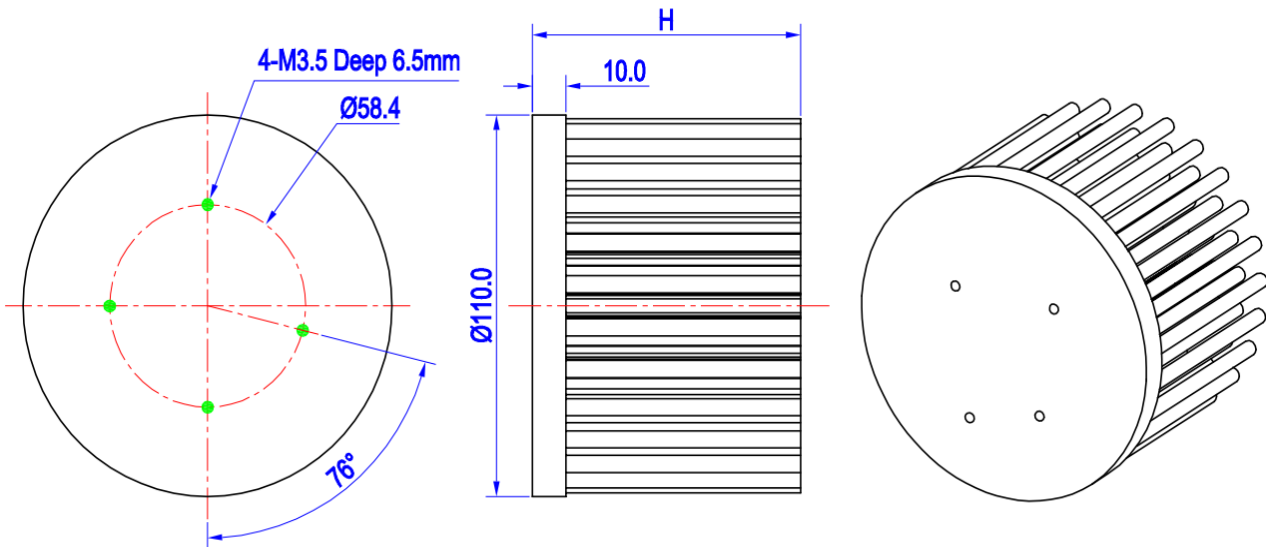


GE Lighting

Notes:

- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MingfaTech.
- MingfaTech reserves the right to change products or specifications without prior notice.

| MOUNTING OPTION | Module type                  | Holder NO.  | THREAD | THREAD DEPTH | THREAD HOLE DISTANCE                   |
|-----------------|------------------------------|-------------|--------|--------------|--|
| 1               | Infusion™ M<br>Infusion™ DLM | GE Lighting | M3.5   | 6.5mm        | $\Phi$ 58.4mm/ 4-M3.5<br>(Zhaga book5) |



**GooLED**

**GooLED-GE-11080 Pin Fin LED Heat Sink Φ110mm for GE Lighting**

**The product data table**

|  |  |                 |
|--|--|-----------------|
|  | <b>Model No.</b>                             | GooLED-GE-11080 |
|  | <b>Heatsink Size</b>                         | Φ110xH80mm      |
|  | <b>Heatsink Material</b>                     | AL1070          |
|  | <b>Finish</b>                                | Black Anodized  |
|  | <b>Weight (g)</b>                            | 617.0           |
|  | <b>Dissipated power (Ths-amb,40°C)</b>       | 33.0 (W)        |
|  | <b>Cooling surface area (mm<sup>2</sup>)</b> | 129119          |
|  | <b>Thermal Resistance (Rhs-amb)</b>          | 1.21 (°C/W)     |

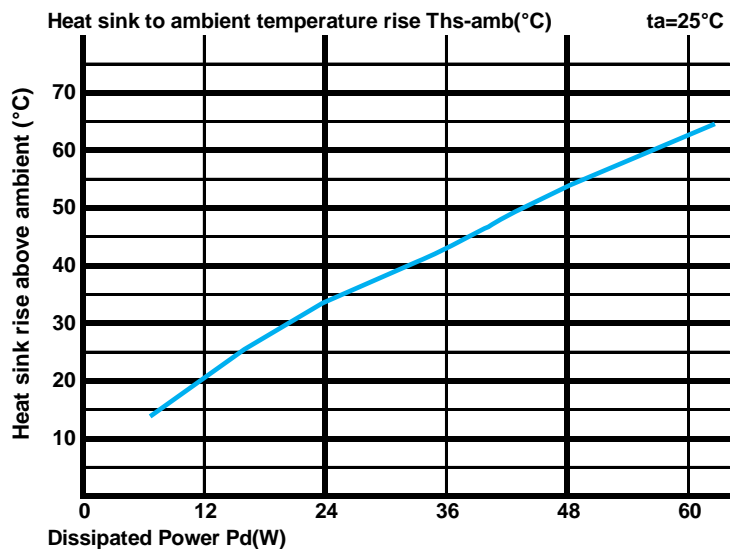
**The thermal data table**

\* Please be aware the dissipated power Pd is not the same as the electrical power Pe of a LED module.

\*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

Pd - Dissipated power ; Pe - Electrical power ; ηL = Light efficiency of the LED module;

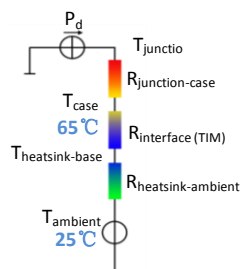
| Dissipated Power Pd(W) | Pd = Pe x (1-ηL) | Heat sink to ambient thermal resistance Rhs-amb (°C/W) | Heat sink to ambient temperature rise Ths-amb (°C) |
|------------------------|------------------|--|--|
|                        |                  | GooLED-GE-11080  |  |
| 12.0                   |                  | 1.67   | 20.0   |
| 24.0                   |                  | 1.38   | 33.0   |
| 36.0                   |                  | 1.17   | 42.0   |
| 48.0                   |                  | 1.10   | 53.0   |
| 60.0                   |                  | 1.03   | 62.0   |



\*The aluminum substrate side of the package outer shell is thermally connected to the heat sink via TIM (Thermal interface material).

MingFa recommends the use of a high thermal conductive interface between the LED module and the LED cooler.

Either thermal grease, A thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended.



\*Thermal resistance is a heat property and a measurement of a temperature difference by which an object or material resists a heat flow.

Geometric shapes are different, the thermal resistance is different. Formula:  $\theta = (Ths - Ta) / Pd$

$\theta$  - Thermal Resistance [°C/W]; Ths - Heatsink temperature; Ta - Ambient temperature

\*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package outer shell is R<sub>junction-case</sub>, the thermal resistance of the TIM outside the package is R<sub>interface (TIM)</sub> [°C/W], the thermal resistance with the heat sink is R<sub>heatsink-ambient</sub> [°C/W], and the ambient temperature is T<sub>ambient</sub> [°C].

\*Thermal resistances outside the package R<sub>interface (TIM)</sub> and R<sub>heatsink-ambient</sub> can be integrated into the thermal resistance R<sub>case-ambient</sub> at this point. Thus, the following formula is also used:

$$T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot Pd + T_{ambient}$$